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- Consider the diagram on the previous slide.
  - What are some questions we could ask?



# LINE MATH

- How many lines? What is  $4 \times 3$  in line math?



# INTERSECTION MATH

Ideas from James Tanton

# INTERSECTION MATH

- How many intersections are there?
- What is  $4 \times 3$  in intersection math?
- Is intersection math commutative?
- What is  $2034 \times 825$  in intersection math?
- What is  $m \times n$ ?

# RECTANGLE MATH

- How many rectangles can be formed from an  $m \times n$  lattice assuming we are only counting rectangles that are vertical or horizontal?

# DINNER PARTY MATH

- The product of two numbers in dinner party math is the number of combinations of four people. The four people must be two females and two males.
- What is  $m \times n$  in dinner party math if  $m$  is the number of males and  $n$  is the number of females?

# RELATIONSHIPS AND EXTENSIONS

- Are there any similarities within intersection math, rectangle math, and dinner party math? If so, why? If not, why not?
- What other questions can we ask?